



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,660	04/16/2004	Robert J. Hanson	MICRON.123DVC2	9611
20995 7590 06/24/2008 KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			EXAMINER DIAZ, JOSE	
			ART UNIT 2879	PAPER NUMBER
			NOTIFICATION DATE 06/24/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com
eOAPilot@kmob.com

Office Action Summary	Application No. 10/826,660	Applicant(s) HANSON, ROBERT J.	
	Examiner JOSE M. DIAZ	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/25/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

a. A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hofmann et al. (6329750)**, hereinafter **Hofmann**, in view of **Derraa (6650043)**.

Regarding **claim 1**, Hofmann clearly shows and discloses a display device structure, comprising: a substrate (401); an electrically conductive and optically transparent layer (402) over the substrate (401), an aluminum layer (502) over the electrically conductive and optically transparent layer (402) (figs. 3-6, 15, col. 8, lines 37-40 & 53-55, col. 9, lines 40-43 and line 67 through col. 10, line 5).

However, Hofmann fails to exemplify that a metallic protective layer over the aluminum layer.

In the same field of endeavor, Derraa clearly shows and discloses a metallic protective layer (324) over an aluminum layer (fig. 3A, col. 6, lines 39-44), in order to protect the aluminum layer against corrosion caused by etchants during fabrication (col. 9, lines 39-45).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a metallic protective layer over an aluminum layer as taught by Derraa in the device of Hofmann, in order to protect the aluminum layer against corrosion caused by etchants during fabrication.

Regarding **claim 2**, Hofmann clearly shows and discloses that the electrically conductive and optically transparent layer (402) is made of indium tin oxide (col. 9, lines 40-43).

Regarding **claim 3**, Hofmann clearly shows and discloses the claimed invention.

However, Hofmann fails to exemplify that a protective layer is made of a material selected from the group consisting of chromium, chrome alloys, nickel and cobalt.

In the same field of endeavor, Derraa clearly shows and discloses that the protective layer (324) is made of a material selected from the group consisting of chromium, chrome alloys, nickel and cobalt (col. 6 lines 43-44), in order to protect the aluminum layer against corrosion caused by etchants during fabrication (col. 9, lines 39-45).

Same rationale to combine from the rejection of claim 1 applies.

Regarding **claim 4**, Hofmann clearly shows and discloses the claimed invention.

However, Hofmann fails to exemplify that a protective layer is made of chromium, and has substantially no pinholes.

In the same field of endeavor, Derraa clearly shows and discloses that the protective layer (324) is made of chromium, and has substantially no pinholes (col. 6 lines 43-44 & lines 63-64), in order to protect the aluminum layer against corrosion caused by etchants during fabrication (col. 9, lines 39-45).

Same rationale to combine from the rejection of claim 1 applies.

Regarding **claim 5**, Hofmann clearly shows and discloses the claimed invention.

However, Hofmann fails to exemplify that a barrier layer between the layer of electrically conductive and optically transparent material and the aluminum layer.

In the same field of endeavor, Derraa clearly shows and discloses a barrier layer (322) the layer below the aluminum layer (col. 6 lines 39-41), in order to impair electromigration.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a barrier layer the layer below the aluminum layer as taught by Derraa in the device of Hofmann, in order to impair electro migration.

Regarding **claim 6**, Hofmann clearly shows and discloses that the substrate (301) forms part of a faceplate for a flat panel display (col. 8, lines 37-40 & 53-55).

Regarding **claim 7**, Hofmann clearly shows and discloses that the layer of electrically conductive and optically transparent material (402) has a thickness of between about 2000 and 5000 Å (col. 9, lines 40-43).

Regarding **claims 8 and 9**, Hofmann clearly shows and discloses the claimed invention.

However, Hofmann fails to exemplify that the aluminum layer has a thickness of between about 3000 and 10,000 Å and that a protective layer has a thickness of between about 500 and 5000 Å.

In the same field of endeavor, Derraa clearly shows and discloses that the aluminum layer (323) has a thickness of between about 3000 and 10,000 Å (col. 7, lines 8-11) and that the protective layer (324) has a thickness of between about 500 and 5000 Å (col. 9 lines 29-33), in order to protect the aluminum layer against corrosion caused by etchants during fabrication (col. 9, lines 39-45).

Same rationale to combine from the rejection of claim 1 applies.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSE M. DIAZ whose telephone number is (571)272-9822. The examiner can normally be reached on 7:00 - 5:00 EST Monday-Thursday; Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/José M. Díaz/
Examiner, Art Unit 2879

/Mariceli Santiago/
Primary Examiner, Art Unit 2879